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66011

R 261846Z SEP 68
FM NPIC WASHDC
TO RUEOJFA/DIA (DIAXX-2)
RUEOJFA/JCS (JRC)
RUEFHQA/HQ USAF FOR AFNICAD & AFRDRP
RUCSAAA/SAC (DIR)
RUCSAAA/544TH ARTW OFFUTT AFB
RUWMDDA/9 SRW (DCI)
RUHHHQA/CINCPAC
RUHHBRA/CINCPACFLT
RUHHABA/CINCPACAF (DIR)
RUHHRGA/CINCUSARPAC
[redacted]
RUCIFGA/AERONAUTICAL SYSTEMS DIV (ASZB), WPAFB OHIO
BT
S E C R E T [redacted] CITE NPIC 4658
SUBJECT: EVALUATION OF GIANT SCALE MISSION 8250-CHS (MOD)

26 SEP 68 19 17Z

DISTRIBUTION
CY OFFICE 25X1
1 TILE
2 CABLE SEC 25X5
FPAB/RD
SECUR
34 ESSG
ESG/CC
ADD
PETRO
AXE 25X1
[redacted] 25X1
CIA

ADVANCE COPY SANITIZED WITH [redacted] 25X1

1. MISSION 8250-CHS (MOD) WAS FLOWN 6 SEP 68 FOR VALIDATION OF THE SENSORS BEFORE DEPLOYMENT TO SOUTHEAST ASIA. A SECOND FLIGHT WITH THE SAME SENSORS WILL BE CONDUCTED IN SOUTHEAST ASIA TO DETER-

PAGE 2 RUEADJU 53 S E C R E T [redacted]
MINE IF THE ATMOSPHERE IS THE GREATEST FACTOR IN IMAGE DEGRADATION. THIS EVALUATION WAS PERFORMED ON THE RIGHT AND LEFT TECHNICAL OBJECTIVE CAMERAS AND THE RIGHT AND LEFT OPERATIONAL OBJECTIVE CAMERAS.

2. ALL CAMERAS WERE OPERATIONAL THROUGHOUT THE MISSION. SOME PORTIONS OF THE MISSION EXHIBIT THIN DENSITY, HOWEVER, IN GENERAL, THE DENSITY AND CONTRAST ARE SATISFACTORY.

3. QUALITY SUMMARY:

A. LEFT TECHNICAL OBJECTIVE CAMERA, S/N 64-19:

(1) THE IMAGERY THROUGH THE FIRST 649 OF THE 1800 FRAMES OF THE MISSION IS COMPARABLE TO THE BEST THIS SYSTEM HAS PROVIDED (NICE GIRL). THIS PORTION OF THE MISSION INCLUDES THREE CAMERA-OFFS OF SHORT DURATION (2 TO 5 MINUTES) BETWEEN FRAMES 178/179, 330/331, AND 534/535. NO CHANGES IN IMAGE QUALITY WERE NOTED. HOWEVER, AFTER THE LONG CAMERA OFF (1 HOUR AND 21 MINUTES), BETWEEN FRAMES 649/650, THE IMAGERY IS DEGRADED. GROUND RESOLUTION IS ESTIMATED TO [redacted] AFTER FRAME 650.

(2) THREE MORE CAMERA OFFS OF SHORT DURATION OCCURRED BETWEEN FRAMES 818/819, 963/964, AND 1158/1159 WITH NO APPARENT EFFECT ON THE IMAGERY. A SECOND LONG CAMERA OFF

PAGE 3 RUEADJU 53 S EC R E T [redacted] 25X1
OCCURRED AT FRAME 1270 (1 HOUR 23 MINUTES) AFTER WHICH THE IMAGERY EXHIBITS FURTHER DEGRADATION. GROUND RESOLUTION IS ESTIMATED TO [redacted] AFTER FRAME 1271. 25X1 THE CAUSE OF THE DEGRADATION IS UNKNOWN ALTHOUGH THE IMAGERY APPEARS TO BE OUT OF FOCUS WHICH COULD BE CAUSED BY CONDENSATION, THERMAL CHANGES, ETC.

(3) IMAGE DEGRADATION IS ALSO PRESENT WITHIN A FRAME AT THE BEGINNING OF SLIT MOVEMENT, WHEN THE SLIT MOVED TOWARD THE DATA BLOCK FOR THAT PARTICULAR FRAME. THE DEGRADED IMAGERY IS LOCATED WITHIN THE FIRST 0.75 INCH OF SLIT TRAVEL

GROUP 1
Excluded from automatic downgrading and declassification
25X1

[redacted]

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AND WITHIN THREE INCHES OF EACH EDGE OF THE FORMAT; IE., THE IMAGERY NEAR THE CENTER OF THE FORMAT APPEARS NORMAL. THE IMAGERY INDICATES THAT THERE MIGHT HAVE BEEN INADEQUATE VACUUM AND PART OF THE FILM WAS NOT IN POSITION AT THE BEGINNING OF EXPOSURE.

(4) RESOLUTION BANDING (SUBTLE CHANGES IN QUALITY ALONG LINES PARALLEL TO THE SLIT) IS NOTED IN SOME PORTIONS OF THE FILM. THIS ANOMALY IS ONLY ASSOCIATED WITH AREAS WHERE THE SHUTTER SPEED WAS 40 INCHES PER SECOND AS LISTED IN THE MISSION EPHEMERIS.

PAGE 4 RUEADJU 53 S E C R E T [redacted] 25X1

B. RIGHT TECHNICAL OBJECTIVE CAMERA, S/N 64-04:

(1) THE IMAGE QUALITY FOLLOWS THE SAME TREND AS NOTED ON THE MATERIAL FROM THE LEFT TECHNICAL OBJECTIVE CAMERA, HOWEVER, THE DEGRADATION IS MORE SEVERE.

(2) THREE SHORT CAMERA OFF/ONS AT FRAMES 181/182, 333/334, AND 539/540 APPEAR TO HAVE NO EFFECT ON THE IMAGERY. THE QUALITY OF THE IMAGERY IN THIS AREA IS COMPARABLE TO THE BEST THIS SYSTEM HAS PROVIDED. HOWEVER, AFTER THE LONG OFF/ON AT 665/666 (1 HOUR 21 MINUTES) THE IMAGERY APPEARS TO BE OUT OF FOCUS. THE GROUND RESOLUTION IS ESTIMATED TO RANGE [redacted] FROM FRAME 666 TO THE END OF THE MISSION. 25X1

C. LEFT OPERATIONAL OBJECTIVE CAMERA, S/N 4023:

(1) GROUND RESOLUTION IS ESTIMATED TO BE BETWEEN [redacted] WHICH IS NOT QUITE EQUAL TO THE BEST THIS SYSTEM HAS PROVIDED. THE QUALITY IS CONSISTENT THROUGHOUT WITH TYPICAL CHANGES IN RESOLUTION ASSOCIATED WITH CHANGES IN THE SCAN ANGLE OF THE CAMERA. 25X1

D. RIGHT OPERATIONAL OBJECTIVE CAMERA, S/N 4018:

PAGE 5 RUEADJU 53 S E C R E T [redacted] 25X1

(1) THE GROUND RESOLUTION IS ESTIMATED TO BE BETWEEN [redacted] WITH THE SHARPEST IMAGERY LOCATED NEAR 20 DEGREES OF SCAN. 25X1

(2) THE IMAGERY ON THE FORWARD LOOKING FRAMES IS SLIGHTLY BETTER THAN THE AFT LOOKING FRAMES THROUGHOUT THE MISSION.

GP-1

S E C R E T [redacted] 25X1

END OF MSG

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